

Sustainability Projects

To visit the City's Environmental Sustainability Program web site, <u>click here</u>.

For information about possible future projects, see the Environmental Sustainability Action Plan.

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ACTIONS CURRENTLY UNDERWAY

Council Environmental Sustainability Committee

After receiving the 89 recommendations from the Environmental Sustainability Task Force, the City Council approved a council sub-committee in September 2008 to analyze the proposals and make recommendations where the City should focus its sustainability efforts, with a major emphasis on reducing the City's greenhouse gas emissions. The committee will be submit its *Environmental Sustainability Action Plan* "roadmap" to the full council for approval in March 2009.

Energy Conservation

The City is in the process of re-lamping its Library parking garage, from 150W mercury vapor to bilevel LED lighting. It is completing a Master Lighting Control project, which will enable remote access scheduling and shut-down capabilities in City Hall, the Center for Performing Arts, and the Library. For its streetlights, it is beginning a pilot project to replace 20 high-pressure sodium bulbs with LED equivalents. The City is also conducting energy audits of its buildings on an on-going basis.

Energy Efficiency and Renewable Energy Financing for Property Owners

The City will begin studying the feasibility of an AB 811 benefit assessment district to provide loans to property owners for energy-efficiency and renewable energy projects.

General Plan Update

In December 2007 Mountain View was awarded a \$45,000 grant for climate protection planning from the *Bay Area Air Quality Management District* to develop greenhouse gas (GHG) reduction policies in its General Plan update. The General Plan will also include policies and actions that address broader sustainability issues.

The City hired a consulting firm to assist in this process. Through two General Plan Visioning events in 2008 Mountain View residents and business people voiced strong interest in using the General Plan Update Process as a tool to help ensure the future sustainability of the City.

The consulting firm is currently in the process of including GHG-reduction goals and policies, as well as *sustainability principles*, into the General Plan Update. The firm will deliver a separate *Greenhouse Gas Reduction Program* in the Spring/Summer of 2010, which will provide specific estimates of financial, GHG, energy, and fuel savings for each General Plan climate protection policy.

Green Building Practices

As part of its Planning application process, the City requires completion of Build It Green's *GreenPoint Rated* checklist for new residential construction, and the US Green Building Council's *LEED* checklist for new commercial and industrial construction, with no minimum requirements for either checklist. In March 2009 the City Council will decide whether to adopt a policy requiring a LEED Silver rating for new public buildings and renovations over 5,000 square feet.

Greenhouse Gas Inventory and Emissions Reduction Targets

In collaboration with the International Council for Local Environmental Initiatives (ICLEI), Mountain View will finalize its 2005-baseline City operations *and* community-wide greenhouse gas emissions inventories by April 2009. The City will then establish long-term emissions reduction targets by the summer or fall of 2009.

Green Team

The City's internal Green Team (GT), comprised of employees from all departments, has a goal of embedding sustainable practices as a core organizational value. The team focuses on identifying green policies and practices relevant to City facilities and operations, and educating and motivating employees to change their behavior. The GT has developed a list of 130 actions to reduce waste and resource consumption in City facilities and operations, and is working with department and division heads to prioritize and implement as many of its recommendations as possible.

Indoor Air Quality

The City is working with its custodial contractors to use low or no-VOC cleaning products. We are diligent about regularly changing HVAC air filters and watching for improved technologies. We are trying to standardize on no-VOC, recyclable carpeting.

Purchasing Policy

In October, the City Council approved an *Environmentally Preferable Purchasing Policy* designed to demonstrate the City's commitment to environmental stewardship and human health and safety. From appliances' efficiency to cleaning products' toxicity, the new policy will make environmental considerations a standard part of the City's purchasing process. A handbook is currently being developed to provide more detailed guidance to employees who make procurement decisions.

Renewable Energy

If a favorable interpretation of AB 2466 is rendered by the California Public Utilities Commission, the City will explore development of a large solar or wind project. The City is also evaluating the feasibility of installing solar technology on its new Fire Station #5.

Roads and Walkways

The City has been investigating the use of Rubberized Asphalt Concrete (RAC) for over 10 years. Through a grant from the California Integrated Waste Management Board, the City will use RAC on several residential streets in 2009, and it will become a City standard when its price becomes competitive.

Shopping Bag Ordinance

To drastically reduce single-use, carry-out shopping bags, the City has been working with the Santa Clara County Recycling and Waste Reduction Commission on a regional effort to develop a draft model ordinance requiring merchants to charge customers for single-use paper or plastic carry-out bags. On January 27, 2009, the City Council approved the Cities Association resolution supporting a regional approach.

Vehicles — Alternative Fuel

As a part of the City's on-going vehicle replacement program, the Fleet Services Section orders hybrids for any additional vehicles being added to the fleet whenever a hybrid model will meet the operational requirements of the user.

Water Conservation

- The City is finalizing a "purple pipe" recycled water project for landscape irrigation. Stretching 4.5 miles, it will be able to carry 1.2M gallons/day (10% of City's potable water use) from the Palo Alto water quality control plant to the North Bayshore area. It is scheduled to begin delivery in April 2009 and will serve many of City's largest business customers.
- The City is performing water audits of its buildings on a periodic, on-going basis.
- In a limited number of private development projects, developers are installing *Bio-Retention Rain Gardens* as a "natural" means of treating rainwater and to meet C3 requirements. Excess water is directed to catch basins and ultimately a treatment vault.

For information on how you can save water at home or at work, including numerous rebate opportunities, <u>click here</u>.

PAST ACCOMPLISHMENTS

Construction and Demolition Ordinance

In August 2008, the City Council adopted a Construction and Demolition Ordinance requiring demolition and construction projects greater than 5,000 sq. ft. to divert a minimum of 50% of debris from the landfill. Currently, construction and demolition debris comprises between 9 and 13 percent of Mountain View's waste. The ordinance became effective on January 1, 2009.

Energy Conservation

- The City investigated the savings that would result from installing a high-efficiency chiller to serve the Civic Center. After conducting a cost-benefit analysis in 2007 of three scenarios of increasing cost, the City chose the most expensive (\$1.35 million) but most efficient option. This option is predicted to yield \$20,750 in annual energy savings and a 60% reduction (100 tons) in annual CO₂ emissions, equivalent to removing approximately 20 cars off the road each year. The project will save the City \$359,000 over 20 years.
- The City re-lamped several large buildings with T-8, T-5, or LED bulbs, installed lighting occupancy sensors in offices/conference rooms/stairwells/other common areas, purchased energy-efficient office equipment, and raised summer and lowered winter building temperatures. Relamping projects included:
 - o Mountain View Sports Pavilion and Whisman Sports Center (250W metal halide to T5) *
 - o Police/Fire Administration Building (T12 to T8 lamps and ballasts) *
 - o City Hall/Library/Center for Performing Arts stairwells (motion sensing, bi-level T5) *
 - o Fleet Services (LED) *
 - o Eagle Pool (500W to 175W)
 - * Received or applied for PG&E rebates
- The City replaced its incandescent traffic signals with LED bulbs, reducing energy demand by approximately 64 kilowatts.

Environmental Sustainability Task Force

After seven months of work, the City's Environmental Sustainability Task Force issued its Final Report in September. More than 60 residents and local business people served on the Task Force, generating 89 recommendations aimed at reducing greenhouse gas emissions (for AB 32) and helping to make Mountain View more environmentally sustainable. The Final Report detailing these recommendations is available on the City's *Environmental Sustainability Program* web site.

Green Building Practices

The City has implemented green building practices in various new City facilities, including the Senior Center and the Shoreline maintenance facility. It is aiming for LEED Silver for its new Fire station #5. The Sierra Club recognized Mountain View for expedited residential building permits and inspections for installing solar electricity.

Project Evaluation Methodology

The City developed a quantitative methodology for measuring the financial and environmental costs and benefits of different sustainability projects. This tool helps the Council evaluate projects based on their cost effectiveness and positive environmental impact.

Reforestation

The City received a "Gold Leaf Award" from the Western Chapter of the International Society of Arboriculture and continued recognition as a "Tree City USA" community for educational outreach, volunteerism and urban reforestation. Examples include the annual Arbor Day program, planting 451 new trees as part of the Evelyn Avenue widening and median project, and planting 3,072 new street trees City-wide since 1994.

Renewable Energy — Landfill Gas to Energy

- Landfill gas-powered micro-turbines produce up to 140 kilowatts of electricity for City buildings in Shoreline at Mountain View Park, while excess energy is placed in the PG&E grid for use by other customers.
- Landfill gas supplied to local businesses for energy production generates approximately 3 megawatts of electricity for use at three sites in the North Bayshore Area, reducing CO₂ emissions by 17.3 million pounds per year for the first 10 years of operation.

Renewable Energy — Solar

- The City installed a 90-kilowatt photovoltaic system on the California Street parking structure to power the structure's lighting and elevator.
- The City uses solar-powered pumps to circulate water in City reservoirs and at Shoreline Sailing Lake.

Roads and Walkways

The City uses the following products or practices to reduce its environmental footprint.

- Asphalt: most old asphalt is reused in Recycled Aggregate Products (RAP), and the City accepts aggregate that contains RAP depending on the application.
- Fly Ash Concrete: the City uses a concrete mix mostly containing 2-3% fly ash.
- Porous Pavements: the City used interlocking pavers in some of its downtown alleys, and such surfaces are being considered as a way of meeting C3 requirements.

Transit Alternatives and Land Use Policies

To encourage use of non-automobile transportation, the City:

Is proud to have several award-winning Transit-Oriented Development projects that concentrate
housing and jobs near transit and link pedestrian and bicycle pathways to transit stations and
on-site services to reduce the need for cars.

- Completed a downtown Transit Center linking Caltrain, light rail and bus service, and successfully advocated to bring the "Baby Bullet" Caltrain service to downtown.
- Has participated in a Commuter Check Program since 1998. Permanent employees are eligible to receive a contribution of up to \$100 monthly for the purchase of multi-ride public transportation passes, such as ACE, BART, Caltrain, SamTrans, VTA, VanPool, and Route 17 Express.
- Has a Guaranteed Ride Home program, which offers employees who have taken an alternative
 mode of transportation to work, a City-paid ride home in the event of an emergency during their
 work shift.
- Has a bicycle available for business or personal use while at work.
- Received a designation as a "Bicycle-Friendly Community" by the League of American Bicyclists
- Constructed a demonstration bicycle boulevard from the Mayfield area to the Stevens Creek Trail and is continuing to study other potential bicycle boulevard routes.

Vehicles — **Alternative Fuel**

The City of Mountain View has taken several steps to reduce carbon emissions from its vehicle fleet and other equipment. These steps/actions are not mandated by specific policies, but rather the City's operational practices supporting environmental sustainability.

As a part of the City's on-going vehicle replacement program, the Fleet Services Section has replaced existing sedans, small pickups and vans with vehicles that are more fuel-efficient, have lower emissions and/or are E85 compatible. Examples include:

- Downsizing full-size vans to light-duty ½-ton pickups with 6-cylinder engines (instead of V8s) or hybrid SUVs with 4-cylinder engines.
- Mid-size vans have been replaced with hybrid SUVs.
- Detective sedans with V6 engines have been replaced with hybrid SUVs with 4-cylinder engines.
- Small pickups with 6-cylinder engines have been replaced with hybrid SUVs with 4-cylinder engines.
- Other sedans with V6 engines have been replaced with hybrid sedans or hybrid SUVs with 4-cylinder engines.
- Failed EV pickups have been replaced with hybrid SUVs.
- The golf course converted its fleet of 75 golf carts to electric carts.
- Purchasing vehicles that are E85 compatible (when offered by the manufacturer).
- Specifying exhaust after-treatment devices be installed on all new diesel-fueled equipment.

Since 2004, the City has used ultra low-sulfur diesel fuel to reduce emissions. Also, since spring 2007, the City has been using a biodiesel blend (95 percent ultra-low sulfur diesel and 5 percent biodiesel) to fuel approximately 50 percent of the City's total diesel-fueled vehicle and equipment fleet.

- The City currently has 2 all-electric "Think" vehicles, 8 hybrid sedans (with 2 more on order and 5 more planned for 2009), 21 hybrid SUVs (with 6 more on order and 4 more planned for 2009), and 13 E-85 flex-fuel vehicles (with 14 more planned for 2009).
- Our goal is to have 76 hybrid and flex-fuel vehicles in use by July 2009, equaling 25% of the fleet (47 hybrids, 27 flex-fuel, and 2 electrics). Of the 70 vehicles that could be hybrid, our plan is to have 42 by the end of 2009, or 60%.

Waste Diversion

The City has a 72% diversion rate, which is a result of (1) free residential and commercial recycling programs, (2) recovery of recyclables from garbage at the <u>SMaRT Station</u>, (3) participation in the County-run backyard composting, public education, Green Business, and hazardous waste programs, and (4) measures to help change a throw-away mentality, such as an annual community garage/yard sale and replacement of free spring and fall cleanup days with an "On-Call" program.

The City has a strong business recycling outreach and assistance program, and is piloting a commercial food waste composting program (up to 15 tons/day) with two large local businesses.

Water Conservation

The City has installed the following water-saving equipment in various public buildings:

- Solar-powered, automatic faucets (30% savings) in City Hall and the Police locker rooms
- Waterless or ultra low-flow urinals (0.5 gpf, 66% savings)
- Dual-flush toilets (30% savings)
- Low-flow faucet aerators

The City has completed 3 building and 2 park irrigation audits in conjunction with the Santa Clara Valley Water District.